



## KALPASTHANA LIFE CARE PRODUCTS PVT. LTD.

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### TECHNICAL DATA SHEET

## 1,3-Cyclohexanedione (1,3-CHD / 13 CHD)

CAS No: 504-02-9

#### PRODUCT DESCRIPTION

A versatile cyclic beta-diketone (commonly referred to as 1,3-CHD or 13 CHD) used as a vital building block in pharmaceutical and agrochemical industries. 1,3-Cyclohexanedione (1,3-CHD / 13 CHD, also known as Dihydroresorcinol) is a crucial precursor in the synthesis of Ondansetron (anti-emetic) and widely used in the production of triketone herbicides like Mesotrione. We ensure high purity ( $\geq 99\%$ ) for consistent manufacturing results.

#### SPECIFICATIONS

Product Name	1,3-Cyclohexanedione (1,3-CHD / 13 CHD)
Synonyms / Abbreviations	1,3-CHD, Cyclohexane-1,3-dione, Dihydroresorcinol, 13 CHD
CAS Number	504-02-9
Molecular Formula	C <sub>6</sub> H <sub>8</sub> O <sub>2</sub>
Molecular Weight	112.13 g/mol
Appearance	White to Off-white Crystalline Powder
Purity (GC)	$\geq 99.0\%$
Melting Point	104°C - 108°C

#### APPLICATIONS & USAGE

1,3-Cyclohexanedione (Dihydroresorcinol) is a highly reactive cyclic beta-diketone exhibiting strong keto-enol tautomerism. It is the primary key starting material for 1,2,3,9-tetrahydrocarbazolone, the direct intermediate for Ondansetron. It is also an essential raw material in synthesizing HPPD-inhibitor agrochemical herbicides like Mesotrione and Sulcotrione, as well as resorcinol derivatives, dyestuffs, and pharmaceutical active agents.

- Ondansetron API KSM: Reacts with phenylhydrazine to yield the carbazolone intermediate for Ondansetron synthesis.
- HPPD Herbicides: Key starting material for the synthesis of advanced triketone agrochemicals like Mesotrione.
- Carvedilol Pathway Precursor: Reacts with phenylhydrazine to yield tetrahydrocarbazolone, which is subsequently converted to 4-hydroxycarbazole (the essential intermediate for Carvedilol synthesis).

#### DISCLAIMER & SAFETY

*Disclaimer: The information contained in this Technical Data Sheet is accurate to the best of our knowledge. It is provided for informational purposes only. The user assumes all risk and liability for the product's use in manufacturing or commercial applications. Products are intended for industrial manufacturing and laboratory research purposes only. Please refer to the Material Safety Data Sheet (MSDS) for detailed safety, handling, storage, and disposal guidelines.*